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# **WATER SUPPLY OUTLOOK FOR COLORADO AND NEW MEXICO**

Prepared by  
**U. S. DEPARTMENT of AGRICULTURE ★ SOIL CONSERVATION SERVICE**

Collaborating with  
**COLORADO AGRICULTURAL EXPERIMENT STATION  
STATE ENGINEER of COLORADO  
and STATE ENGINEER of NEW MEXICO**

Data included in this report were obtained by the agencies named above in cooperation with the Bureau of Reclamation, U.S. Forest Service, National Park Service, Corps of Engineers and other Federal, State and private organizations.

AS OF  
**APR. 1, 1971**

## TO RECIPIENTS OF WATER SUPPLY OUTLOOK REPORTS:

Most of the usable water in western states originates as mountain snowfall. This snowfall accumulates during the winter and spring, several months before the snow melts and appears as streamflow. Since the runoff from precipitation as snow is delayed, estimates of snowmelt runoff can be made well in advance of its occurrence. Streamflow forecasts published in this report are based principally on measurement of the water equivalent of the mountain snowpack.

Forecasts become more accurate as more of the data affecting runoff are measured. All forecasts assume that climatic factors during the remainder of the snow accumulation and melt season will interact with a resultant average effect on runoff. Early season forecasts are therefore subject to a greater change than those made on later dates.

The snow course measurement is obtained by sampling snow depth and water equivalent at surveyed and marked locations in mountain areas. A total of about ten samples are taken at each location. The average of these are reported as snow depth and water equivalent. These measurements are repeated in the same location near the same dates each year.

Snow surveys are made monthly or semi-monthly from January 1 through June 1 in most states. There are about 1900 snow courses in Western United States and in the Columbia Basin in British Columbia. Networks of automatic snow water equivalent and related data sensing devices, along with radio telemetry are expanding and will provide a continuous record of snow water and other parameters of key locations.

Detailed data on snow course and soil moisture measurements are presented in state and local reports. Other data on reservoir storage, summaries of precipitation, current streamflow, and soil moisture conditions at valley elevations are also included. The report for Western United States presents a broad picture of water supply outlook conditions, including selected streamflow forecasts, summary of snow accumulation to date, and storage in larger reservoirs.

Snow survey and soil moisture data for the period of record are published by the Soil Conservation Service by states about every five years. Data for the current year is summarized in a West-wide basic data summary and published about October 1 of each year.

### PUBLISHED BY SOIL CONSERVATION SERVICE

The Soil Conservation Service publishes reports following the principal snow survey dates from January 1 through June 1 in cooperation with state water administrators, agricultural experiment stations and others. Copies of the reports for Western United States and all state reports may be obtained from Soil Conservation Service, Western Regional Technical Service Center, Room 209, 701 N. W. Glisan, Portland, Oregon 97209.

Copies of state and local reports may also be obtained from state offices of the Soil Conservation Service in the following states:

STATE	ADDRESS
Alaska	P. O. Box "F", Palmer, Alaska 99645
Arizona	6029 Federal Building, Phoenix, Arizona 85025
Colorado (N. Mex.)	12417 Federal Building, Denver, Colorado 80202
Idaho	Room 345, 304 N. 8th. St., Boise, Idaho 83702
Montana	P. O. Box 970, Bozeman, Montana 59715
Nevada	P. O. Box 4850, Reno Nevada 89505
Oregon	1218 S. W. Washington St., Portland, Oregon 97205
Utah	4012 Federal Bldg., 125 South State St., Salt Lake City, Utah 84111
Washington	360 U.S. Court House, Spokane, Washington 99201
Wyoming	P. O. Box 2440, Casper, Wyoming 82601

### PUBLISHED BY OTHER AGENCIES

Water Supply Outlook reports prepared by other agencies include a report for California by the Water Supply Forecast and Snow Surveys Unit, California Department of Water Resources, P. O. Box 388, Sacramento, California 95802 --- and for British Columbia by the Department of Lands, Forests and Water Resources, Water Resources Service, Parliament Building, Victoria, British Columbia





# **WATER SUPPLY OUTLOOK FOR COLORADO AND NEW MEXICO**

and  
FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS

*Issued by*

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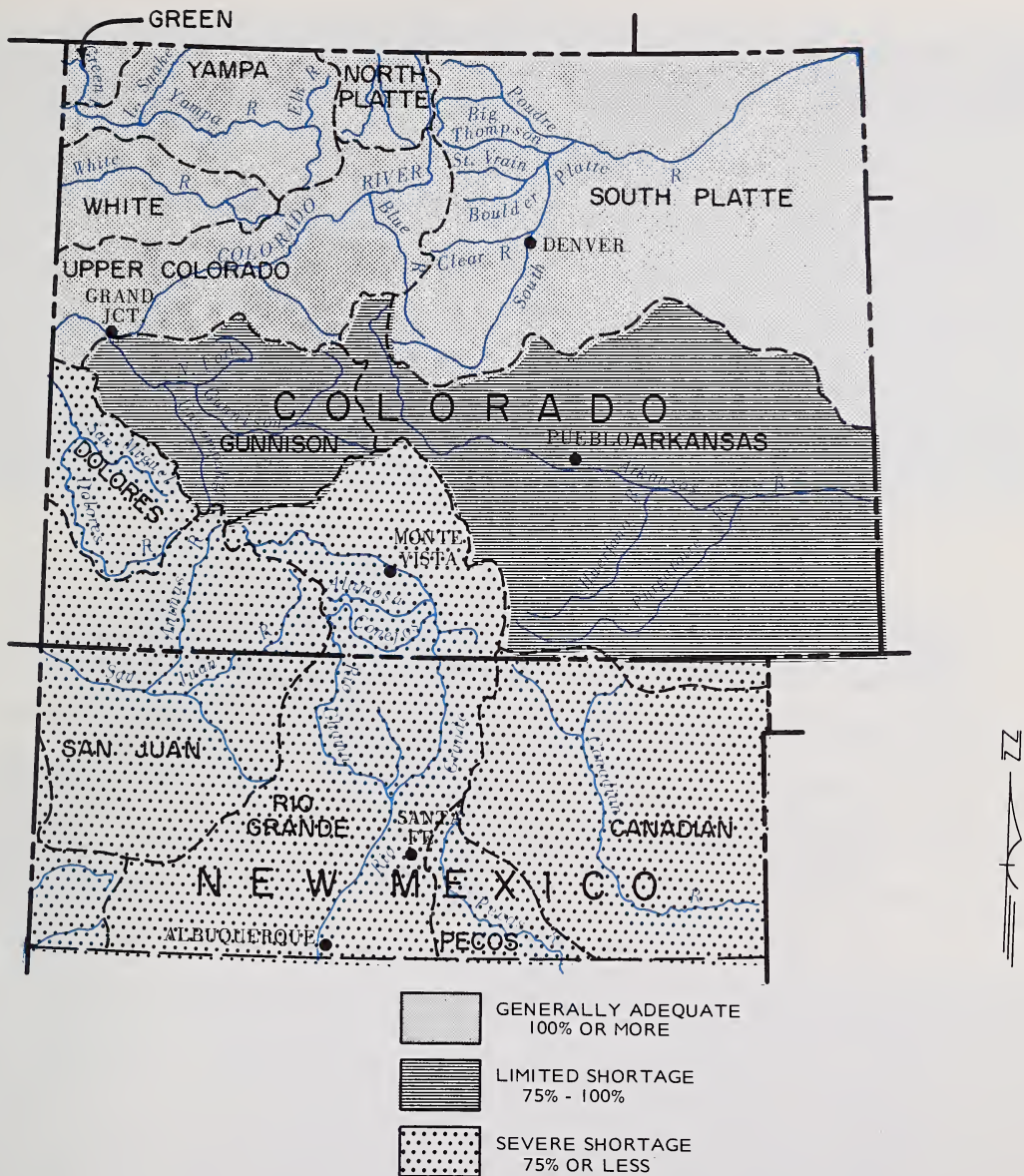
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WATERSHED II	- ARKANSAS RIVER WATERSHED
	Describes water supply conditions in Lake County, Upper Arkansas, Fremont, Custer County Divide, Fountain Valley, Black Squirrel, Horse-Rush Creek, Central Colorado, Turkey Creek, Pueblo, Bessemer, Olney Boone, Cheyenne, Upper Huerfano, Stonewall, Spanish Peaks, Purgatoire, Branson Trinchera, Western Baca County, Southeastern Baca County, Two Buttes, Bent, Timpas, Northeast Prowers, Prowers, West Otero, East Otero, and Big Sandy Soil Conservation Districts.
WATERSHED III	- RIO GRANDE WATERSHED (COLORADO)
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# WATER SUPPLY OUTLOOK

as of  
April 1, 1971



The map on this page indicates the most probable water supply as of the date of this report. Estimates assume average conditions of snow fall, precipitation and other factors from this date to the end of the forecast period. As the season progresses accuracy of estimates improve. In addition to expected streamflow, reservoir storage, soil moisture in irrigated areas, and other factors are considered in estimating water supply. Estimates apply to irrigated areas along the main streams and may not indicate conditions on small tributaries.

## WATER SUPPLY CONDITIONS

as of

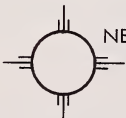
April 1, 1971

WATER SUPPLIES WILL VARY GREATLY OVER COLORADO AND NEW MEXICO THIS SUMMER. NORTHERN COLORADO SHOULD HAVE EXCELLENT WATER SUPPLIES. FORECASTS ARE 100 TO 130% OF NORMAL. THE MIDDLE AREAS OF COLORADO, THE ARKANSAS, THE COLORADO AND THE GUNNISON RIVERS SHOULD HAVE NEAR NORMAL WATER. THE SOUTHERN PORTION OF COLORADO AND NORTHERN AND CENTRAL NEW MEXICO HAVE VERY POOR WATER PROSPECTS. COLORADO HAS GOOD TO FAIR CARRY-OVER STORAGE. SOILS IN THE IRRIGATED AREAS OF NEW MEXICO ARE REPORTEDLY IN POOR CONDITION. COLORADO REPORTS GOOD CONDITIONS.



COLORADO

-- THE SNOW PACK IN NORTHERN COLORADO IS EXCELLENT. SOME SNOW COURSES ARE THE MAXIMUM OF RECORD. BOTH THE EAST AND WEST SLOPES OF NORTHERN COLORADO SHOULD ENJOY ONE OF THE BEST WATER YEARS ON RECORD. THE COLORADO RIVER SHOULD SUPPLY ADEQUATE WATER TO ALL ITS USERS. GENERALLY THE ARKANSAS AND GUNNISON RIVERS SHOULD PRODUCE NEAR NORMAL WATER SUPPLIES. THE SOUTHERN PORTION OF THE STATE, THE RIO GRANDE AND THE SAN JUAN BASINS, CAN PLAN ON A DRY SUMMER. UNLESS SUMMER RAINS ARE PLENTIFUL, WATER SHORTAGES WILL OCCUR. CARRY-OVER STORAGE IS GOOD ESPECIALLY IN THE SOUTH PLATTE BASIN.



NEW MEXICO

-- WATER SUPPLIES THIS SUMMER COULD BE AMONG THE LOWEST ON RECORD. PRACTICALLY NO SNOW IS LEFT IN NEW MEXICO. NEW MEXICO STREAMS ORIGINATING IN COLORADO WILL HAVE A POOR START. ALL FORECASTS ARE WELL BELOW NORMAL. RESERVOIR CARRY-OVER STORAGE IS NEAR NORMAL. UNITS WITH DIRECT FLOW RIGHTS ON NEW MEXICO'S MAJOR STREAMS, AND NO STORAGE WILL HAVE A PARTICULARLY POOR YEAR. THE FLOW PEAKS WILL BE LOW AND LAST ONLY A SHORT PERIOD. LATER SUMMER FLOW WILL BE REDUCED UNLESS SUMMER RAINS ARE BOUNTIFUL.

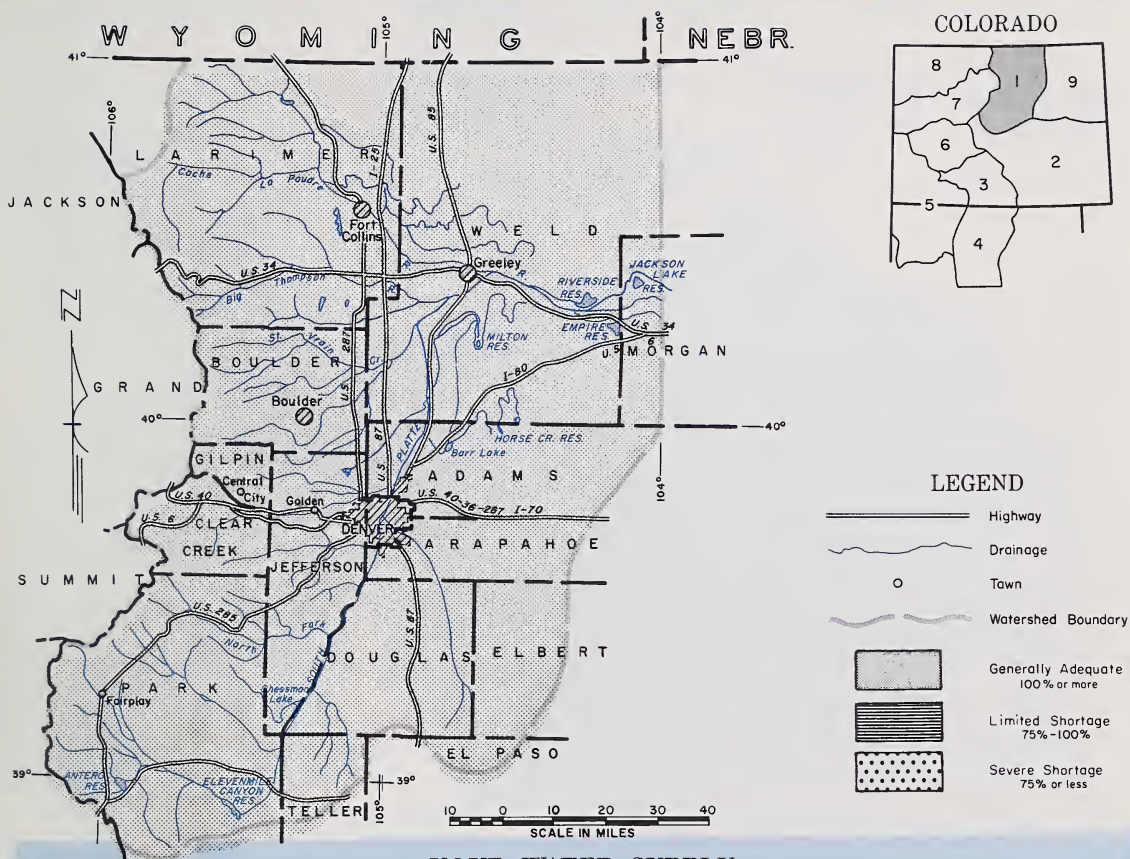


# WATER SUPPLY OUTLOOK FOR THE SOIL CONSERVATION DISTRICTS IN THE SOUTH PLATTE RIVER WATERSHED IN COLORADO

as of

April 1, 1971

**U. S. DEPARTMENT OF AGRICULTURE · SOIL CONSERVATION SERVICE**  
COLORADO EXPERIMENT STATION, STATE ENGINEERS OF COLORADO AND NEW MEXICO



## YOUR WATER SUPPLY

WATER USERS ON THE UPPER SOUTH PLATTE AND ALL THE NORTHERN TRIBUTARIES SHOULD HAVE ONE OF THE BEST WATER YEARS ON RECORD. ALL STREAMFLOWS ARE BEING FORECASTED ABOVE NORMAL. CARRY-OVER STORAGE IN THE AREA'S MANY RESERVOIRS IS 136% OF THE 15 YEAR AVERAGE. THIS WILL PROVIDE AN EXCELLENT SUPPLEMENTAL SUPPLY. IRRIGATION AUTHORITIES INDICATE VALLEY SOILS ARE IN EXCELLENT CONDITION.

This report prepared by  
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DENVER, COLORADO DENVER, COLORADO

*The Conservation of Water begins with the Snow Survey*

# STREAMFLOW FORECASTS (1000 Ac. Ft.) Apr-Sept

# WATER SUPPLY OUTLOOK

Expressed as "Poor, Fair, Average, Excellent" With Respect to Usual Supply.

FORECAST POINT	FORECAST	% of Average	Average <sup>†</sup>
Big Thompson at Drake (1)	112	112	100
Boulder at Orodell	60	122	49
Cache La Poudre at Canon Mouth (2)	250	116	215
Clear Creek at Golden (3)	145	122	119
St. Vrain at Lyons (4)	78	111	70

STREAM or AREA	Flow Period	
	Spring Season	Late Season
Bear Creek	Exc.	Exc.
Coal Creek	Exc.	Exc.
North Fork of South Platte	Exc.	Exc.
North Fork of Cache La Poudre	Exc.	Exc.
Ralston Creek	Exc.	Exc.
Rock Creek	Exc.	Exc.

(1) Observed flow plus by-pass to power plants. (2) Observed flow minus trans-basin diversions plus municipal and irrigation diversions. (3) Observed flow minus diversion through August P. Gumlick Tunnel. (4) Observed flow plus change in storage in Price Reservoir.

## SUMMARY OF SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average <sup>†</sup>
Big Thompson	5	89	120
Boulder	3	75	101
Cache La Poudre	8	90	128
Clear Creek	6	79	110
Saint Vrain	3	74	104
South Platte	3	65	96

## SOIL MOISTURE

RIVER BASIN	Number of Stations	THIS YEAR'S MOISTURE as PERCENT OF:	
		Last Year	Average <sup>†</sup>
Big Thompson	3	89	139
Boulder	1	102	121
Cache La Poudre	2	91	122
Clear Creek	2	92	130
Saint Vrain	2	95	122
South Platte	2	107	122

## RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average <sup>†</sup>
Antero	33.0	15.9	15.9	10.6
Barr Lake	32.2	26.2	27.4	21.1
Black Hollow	8.0	4.4	4.0	3.3
Boyd Lake	44.0	44.8	31.2	27.6
Cache La Poudre	9.5	8.0	8.4	7.5
Carter Lake	108.9	106.4	100.7	81.7
Chambers Lake	8.8	4.5	3.2	3.0
Cheesman	79.0	73.5	79.1	49.0
Cobb Lake	34.3	21.9	18.5	9.9
Eleven Mile	97.8	96.4	96.4	72.1
Fossil Creek	11.6	9.5	10.0	7.0
Gross	43.1	36.7	35.3	22.4
Halligan	6.4	3.3	3.8	4.7

## RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average <sup>†</sup>
Horsetooth	143.5	116.5	108.4	106.8
Lake Loveland	14.3	10.9	11.9	8.4
Lone Tree	9.2	8.7	8.0	6.6
Mariano	5.4	5.4	5.1	4.2
Marshall	10.3	7.0	7.5	3.0
Marston	18.0	16.3	16.4	14.7
Milton	24.4	15.9	13.5	10.8
Standley	42.0	31.0	32.6	11.0
Terry Lake	8.2	6.4	.2	5.0
Union	12.7	12.7	12.7	7.6
Windsor	18.6	8.7	13.7	9.9

1953-1967 period.

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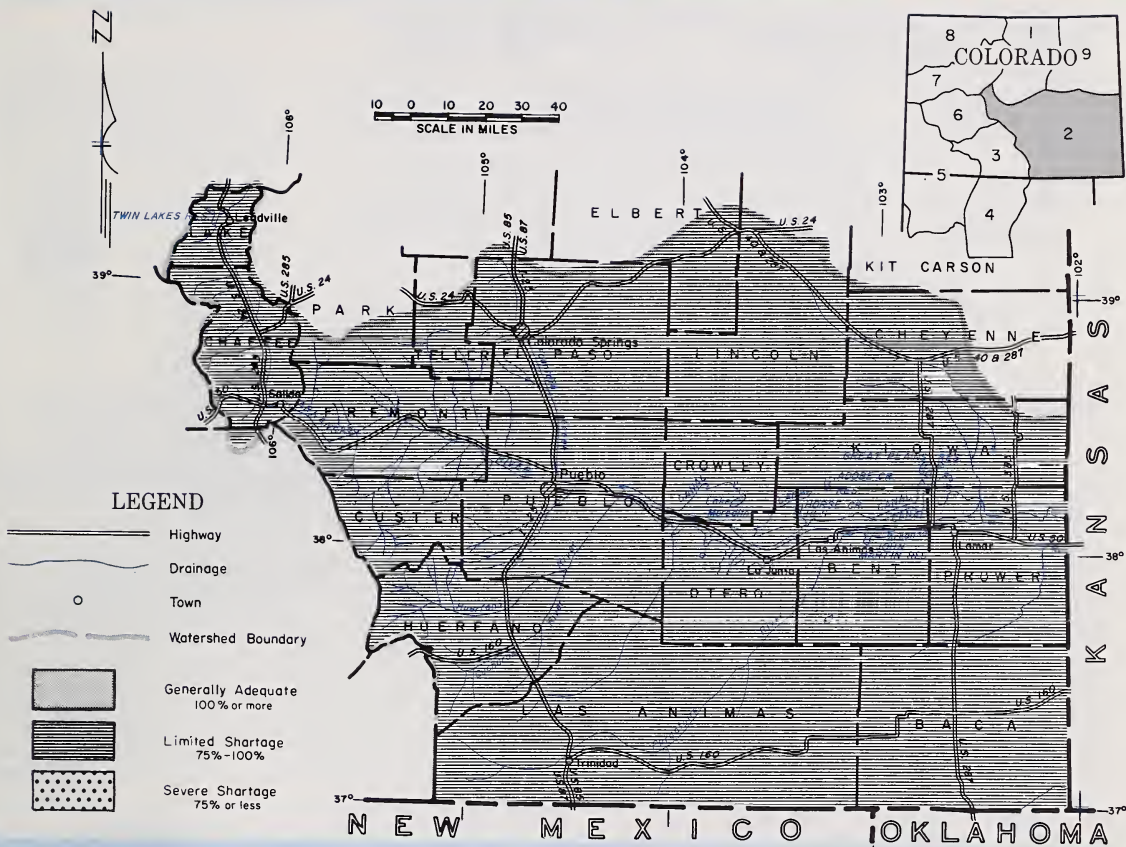
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# WATER SUPPLY OUTLOOK FOR THE SOIL CONSERVATION DISTRICTS IN THE ARKANSAS RIVER WATERSHED IN COLORADO

as of  
April 1, 1971

**U. S. DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE**  
COLORADO EXPERIMENT STATION, STATE ENGINEERS OF COLORADO AND NEW MEXICO



## YOUR WATER SUPPLY

WATER USERS ON THE ARKANSAS DRAINAGE SHOULD HAVE NEAR NORMAL WATER

SUPPLIES THIS SUMMER. THE SNOW PACK IS NEAR NORMAL ON THE ARKANSAS DRAINAGE. THE SOUTHERN TRIBUTARIES HAVE CONSIDERABLY LESS SNOW, BUT WILL SUPPLY SOME WATER. CARRY-OVER STORAGE IS EXCELLENT. WITH THE EXCEPTION OF JOHN MARTIN, MOST OF THE LARGER RESERVOIRS, CONTAIN CONSIDERABLY MORE WATER THAN NORMAL. VALLEY SOILS CONTAIN FAIR TO GOOD SOIL MOISTURE.

This report prepared by  
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U. S. DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE  
DENVER, COLORADO LA JUNTA, COLORADO

*The Conservation of Water begins with the Snow Survey*

# STREAMFLOW FORECASTS (1000 Ac. Ft.) Apr-Sept

FORECAST POINT	FORECAST	% of Average	Average
Arkansas nr Pueblo (1)	290	97	298
Arkansas at Salida (1)	300	97	309
Cucharas nr LaVeta	9	75	12
Purgatoire at Trinidad	40	87	46

(1) Observed flow plus change in Clear Creek, Twin Lakes and Turquoise Reservoirs minus diversions through Bush Ivanhoe, Divide, Twin Lakes and Homestake Tunnels and Ewing, Front Pass, Wurtz and Colombine ditches.

## SUMMARY OF SNOW MEASUREMENTS (COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average
Arkansas	10	78	103
Cucharas and Purgatoire	3	33	39

# WATER SUPPLY OUTLOOK

Expressed as "Poor, Fair, Average, Excellent" With Respect to Usual Supply.

STREAM or AREA	Flow Period	
	Spring Season	Late Season
Apishapa	Exc.	Avg.
Fountain Creek	Exc.	Avg.
Grape	Exc.	Avg.
Hardscrable Creek	Exc.	Avg.
Huerfano	Exc.	Avg.
Monument Creek	Exc.	Avg.

## SOIL MOISTURE

RIVER BASIN	Number of Stations	THIS YEAR'S MOISTURE as PERCENT OF:	
		Last Year	Average
Arkansas	3	107	99
Cucharas and Purgatoire	1	106	100

## RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

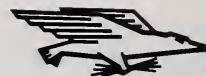
RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average
Adobe	61.6	47.5	17.6	11.1
Clear Creek	11.4	6.0	10.4	7.3
Cucharas	40.0		1.7	3.3
Great Plains	150.0	108.6	73.2	38.3
Horse Creek	26.9	9.8	20.1	4.9

## RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average
John Martin	353.9	34.6	50.8	89.4
Meredith	41.9	25.6	24.7	10.0
Model	15.0	1.3	1.1	3.1
Turquoise	130.0	52.4	42.7	7.5
Twin Lakes	57.9	41.5	36.8	19.9

+ 1953-1967 period.

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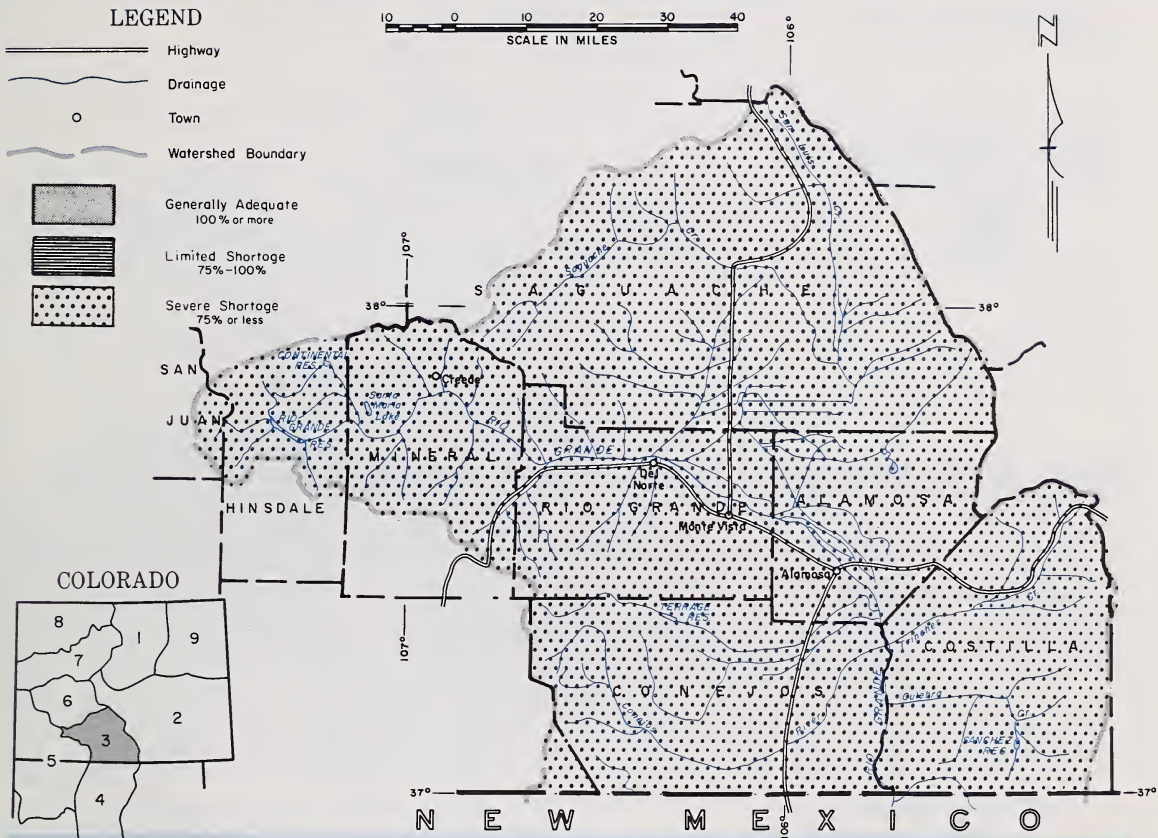
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# WATER SUPPLY OUTLOOK FOR THE SOIL CONSERVATION DISTRICTS IN THE UPPER RIO GRANDE WATERSHED IN COLORADO as of

April 1, 1971

**U. S. DEPARTMENT OF AGRICULTURE · SOIL CONSERVATION SERVICE**  
COLORADO EXPERIMENT STATION, STATE ENGINEERS OF COLORADO AND NEW MEXICO



## YOUR WATER SUPPLY

WATER SUPPLY FORECASTS ARE MUCH BELOW NORMAL ON ALL THE RIO GRANDE BASIN.

CURRENT SNOW PACK RANGES FROM 46% ON CULEBRA, 51% ON CONEJOS TO 63% ON THE RIO GRANDE AND 72% FOR THE ALAMOSA. MANY SNOW COURSES ARE NEAR THE MINIMUM ON RECORD. RESERVOIR STORAGE IS 179% OF AVERAGE. A COMBINED TOTAL OF SIX RESERVOIRS IS 83,500 ACRE FEET COMPARED TO AN AVERAGE OF 46,700 ACRE FEET. SOIL MOISTURE IN THE MOUNTAIN AREAS IS ABOVE AVERAGE.

This report prepared by

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FORT COLLINS, COLORADO

Issued by

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U. S. DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE  
DENVER, COLORADO      DURANGO, COLORADO

*The Conservation of Water begins with the Snow Survey*

# STREAMFLOW FORECASTS (1000 Ac. Ft.)Apr-Sept

# WATER SUPPLY OUTLOOK

Expressed as "Poor, Fair, Average, Excellent" With Respect to Usual Supply.

FORECAST POINT	FORECAST	% of Average	Average †
Alamosa abv Terrace	40	65	62
Conejos nr Mogote (1)	120	66	182
Culebra at San Luis (2)	15	79	19
Rio Gr. at 30 Mile Bridge (3)	90	77	117
Rio Gr. nr Del Norte (3)	290	66	438
South Fork at South Fork	75	68	110

STREAM or AREA	Flow Period	
	Spring Season	Late Season
Saguache Creek	Poor	Poor
Sangre de Cristo Cr.	Poor	Poor
Trinchera	Poor	Poor

(1) Observed flow plus change in storage in Platoro Reservoir. (2) Observed flow plus change in storage in Sanchez Reservoir. (3) Observed flow plus change in storage in Santa Maria, Rio Grande and Continental Reservoirs.

## SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average †
Alamosa	2	85	72
Conejos	3	68	51
Culebra	2	46	46
Rio Grande	10	76	63

## SOIL MOISTURE

RIVER BASIN	Number of Stations	THIS YEAR'S MOISTURE as PERCENT OF:	
		Last Year	Average †
Alamosa	2	143	147
Conejos	1	78	77
Culebra	2	116	96
Rio Grande	3	125	123

## RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average †
Continental	26.7	10.0	6.6	5.1
Platoro	60.0	2.9	3.0	7.1
Rio Grande	45.8	41.6	28.0	13.3

## RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average †
Sanchez	103.2	18.0	18.7	11.1
Santa Maria	45.0	11.0	6.7	6.0
Terrace	17.7	0.0	9.9	4.0

† 1953-1967 period.

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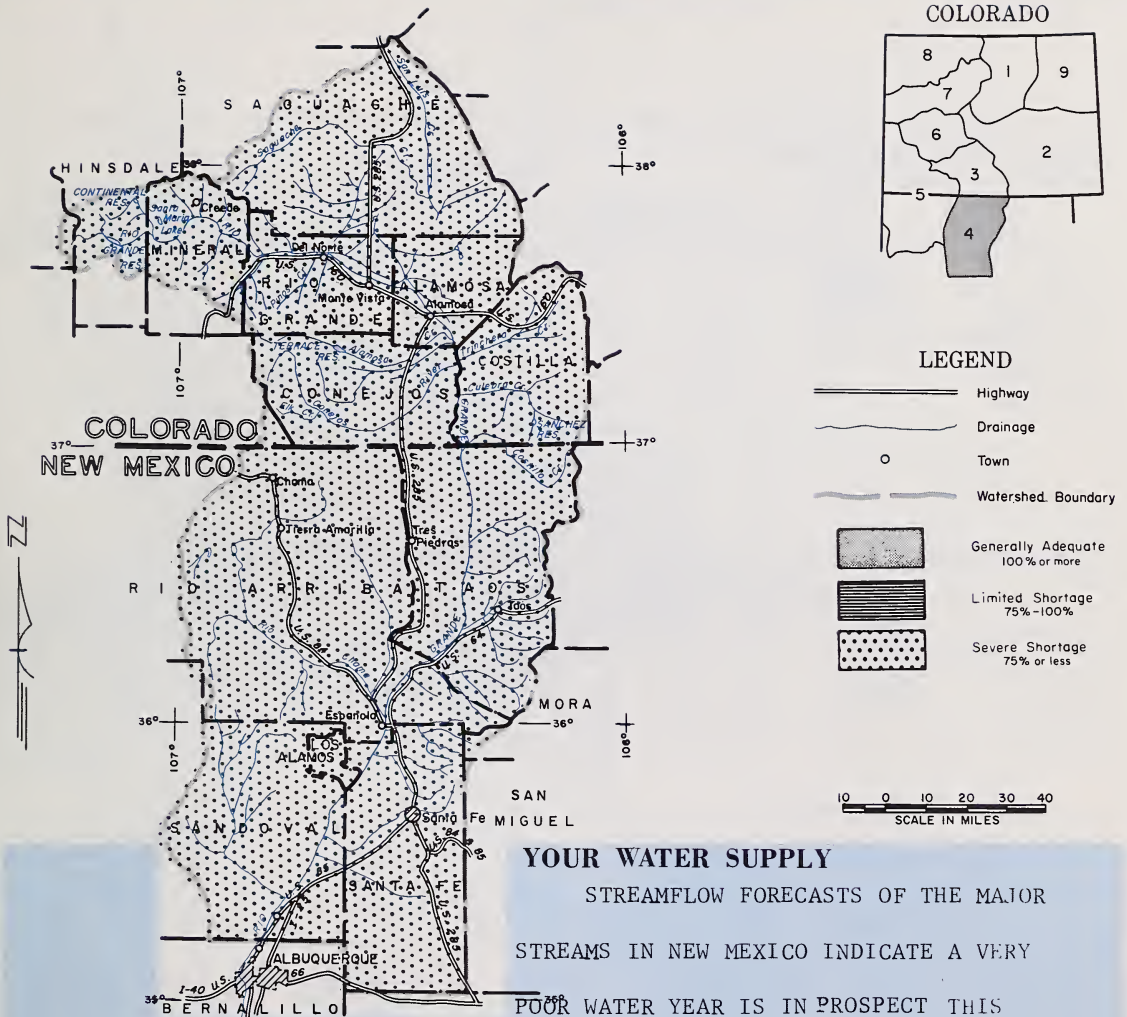
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# WATER SUPPLY OUTLOOK FOR THE SOIL CONSERVATION DISTRICTS IN THE RIO GRANDE WATERSHED IN NEW MEXICO

as of

April 1, 1971

**U.S. DEPARTMENT OF AGRICULTURE · SOIL CONSERVATION SERVICE**  
COLORADO EXPERIMENT STATION, STATE ENGINEERS OF COLORADO AND NEW MEXICO



SUMMER. FORECASTS ARE BASED ON NORMAL PRECIPITATION FOR THE REMAINDER OF THE YEAR. MOST OF THE SNOW SEASON IS PAST AND THE CURRENT SNOW PACK IS ALMOST NON EXISTENT. ONLY VERY HIGH ELEVATIONS HAVE ANY SNOW LEFT.

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ALBUQUERQUE, NEW MEXICO SANTA FE, NEW MEXICO

*The Conservation of Water begins with the Snow Survey*



# STREAMFLOW FORECASTS (1000 Ac. Ft.) Mar-Jul

# WATER SUPPLY OUTLOOK

Expressed as "Poor, Fair, Average, Excellent" With Respect to Usual Supply.

FORECAST POINT	FORECAST	% of Average	Average +
Costilla at Cost. (1)	9	50	18
Pecos at Pecos	20	49	41
Rio Chama to ElVado	110	59	188
Rio Gr. at Otowi (2)	280	55	513
Rio Gr. at San Mar (2)	140	42	334
Rio Hondo nr Valdez	7	47	15
Red R. at mouth nr Questa	20	63	32

STREAM or AREA	Flow Period	
	Spring Season	Late Season
Embudo Creek	Poor	Poor
Jemez River	Poor	Poor
Mora River	Poor	Poor
Nambe Creek	Poor	Poor
Rio Ojo Caliente	Poor	Poor
Rio Pueblo de Taos	Poor	Poor
Santa Fe Creek	Poor	Poor

The forecast of the Rio Grande at San Marcial is 22% of the Average used by the Elephant Butte Irrigation District. (1) Observed flow plus change in Costilla Reservoir. (2) Observed flow plus change in storage in El Vado and Abiquiu Reservoir.

## SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average +
Pecos	1	0	0
Rio Chama	4	36	29
Rio Grande, N.M.	13	22	20
Rio Hondo	1	11	--
Red River	2	22	19

## SOIL MOISTURE

RIVER BASIN	Number of Stations	THIS YEAR'S MOISTURE as PERCENT OF:	
		Last Year	Average +
Pecos	2	126	90
Rio Chama	1	---	90
Rio Grande	4	73	82
Red River			

## RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average +
Alamorgordo	111	60	85	64
Caballo	344	43	47	65
Conchas	273	153	223	161
Elephant Butte	2195	317	535	334

## RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average +
ElVado	195	1	1	6
McMillen-Avalon	32	15	35	22

+ 1953-1967 period.

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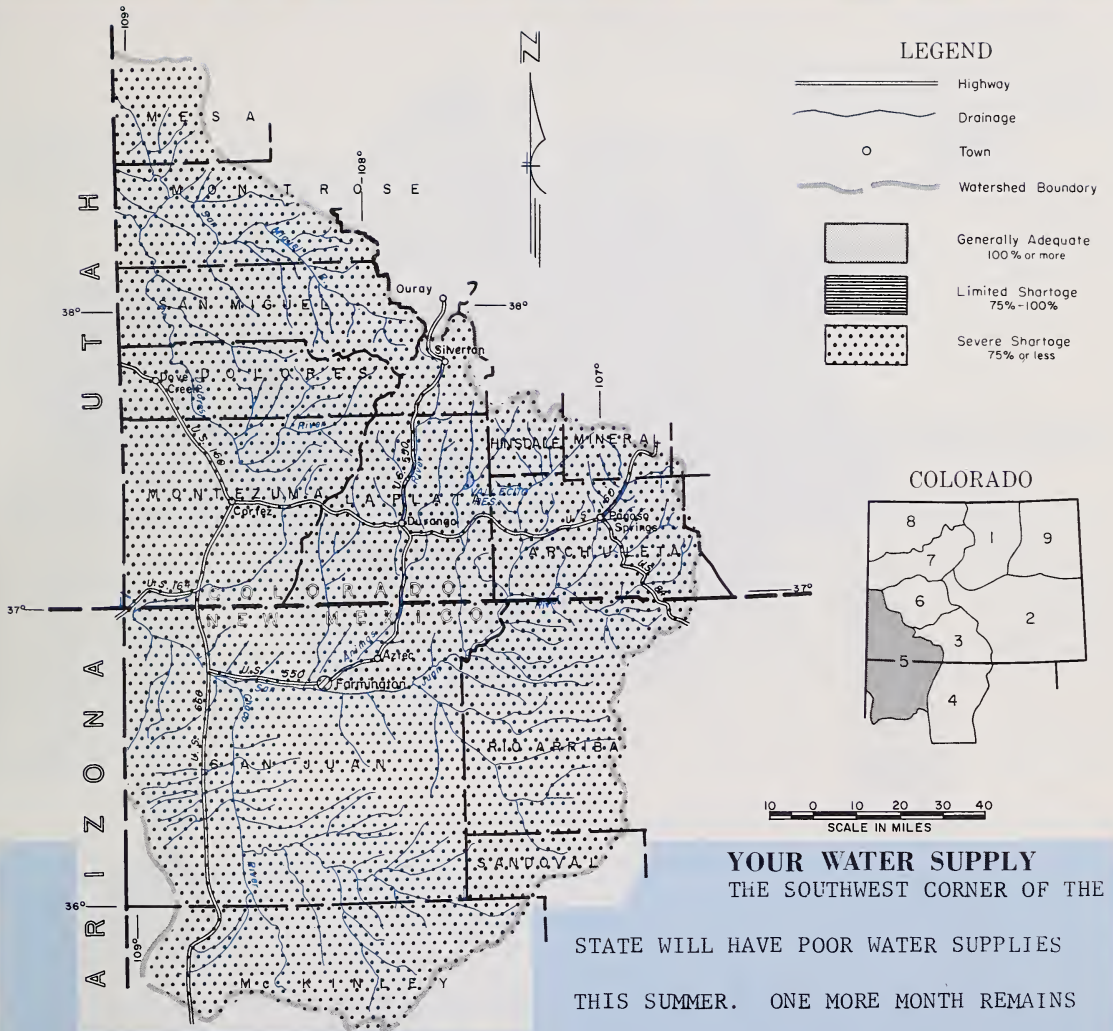
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# WATER SUPPLY OUTLOOK FOR THE SOIL CONSERVATION DISTRICTS IN THE SAN MIGUEL, DOLORES, ANIMAS, SAN JUAN WATERSHEDS IN COLORADO AND NEW MEXICO

as of  
April 1, 1971

**U. S. DEPARTMENT OF AGRICULTURE · SOIL CONSERVATION SERVICE**  
COLORADO EXPERIMENT STATION, STATE ENGINEERS OF COLORADO AND NEW MEXICO



TO INCREASE THE SNOW PACK, HOWEVER, IT WOULD HAVE TO BE AN EXTREMELY HIGH SNOW MONTH TO EVEN BRING THE SNOW PACK TO NORMAL. CURRENT SNOW PACK RANGES FROM 58% OF NORMAL ON THE SAN JUAN TO 78% ON THE ANIMAS.

This report prepared by

JACK N. WASHICHEK and RONALD E. MORELAND  
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FORT COLLINS, COLORADO

Issued by

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*The Conservation of Water begins with the Snow Survey*

# STREAMFLOW FORECASTS (1000 Ac. Ft.) Apr-Sept

FORECAST POINT	FORECAST	% of Average	Average +
Animas at Durango	320	78	409
Dolores at Dolores	155	67	231
La Plata at Hesperus	16	67	24
Los Pinos at Bayfield			
(1)	125	64	194
Piedra Cr. at Piedra	90	55	163
San Juan at Carracas	250	66	379
Inflow to Navajo Res.			
(1) (Apr-Jul)	370	60	619

(1) Observed flow plus change in storage in Vallecito Reservoir.

## SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average +
Animas	6	82	78
Dolores	4	64	77
San Juan	5	77	58

# WATER SUPPLY OUTLOOK

Expressed as "Poor, Fair, Average, Excellent" With Respect to Usual Supply.

STREAM or AREA	Flow Period	
	Spring Season	Late Season
Florida	Avg.	Fair
Mancos	Avg.	Fair
San Miguel	Avg.	Fair

## SOIL MOISTURE

RIVER BASIN	Number of Stations	THIS YEAR'S MOISTURE as PERCENT OF:	
		Last Year	Average +
Animas	3	130	94
Dolores	3	111	102
San Juan	2	157	122

## RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average +
Goundhog	22	14	13	7
Lemon	40	26	30	15
Navajo	1696	834	859	--
Vallecito	126	81	79	50

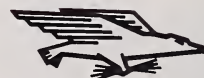
## RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average +

+ 1953-1967 period.

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# WATER SUPPLY OUTLOOK FOR THE SOIL CONSERVATION DISTRICTS IN THE GUNNISON RIVER WATERSHED IN COLORADO as of

April 1, 1971

**U. S. DEPARTMENT OF AGRICULTURE · SOIL CONSERVATION SERVICE**  
COLORADO EXPERIMENT STATION, STATE ENGINEERS OF COLORADO AND NEW MEXICO



STREAMFLOW FORECASTS FOR THE GUNNISON RIVER AND ITS TRIBUTARIES ARE SLIGHTLY BELOW THE 1953-67 AVERAGE, RANGING FROM 78% FOR THE UNCOMPAHGRE AND 88% FOR THE GUNNISON TO 94% FOR SURFACE CREEK. THESE ARE ABOUT THE SAME AS LAST MONTH. COMBINED USABLE STORAGE ON BLUE MESA, MORROW POINT AND TAYLOR RESERVOIRS IS 516,000 ACRE FEET. TAYLOR PARK IS 92,000 ACRE FEET OR 159% OF AVERAGE.

This report prepared by —  
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DENVER, COLORADO GRAND JUNCTION, COLORADO

*The Conservation of Water begins with the Snow Survey*



# STREAMFLOW FORECASTS (1000 Ac. Ft.) Apr-Sept

# WATER SUPPLY OUTLOOK

Expressed as "Poor, Fair, Average, Excellent" With Respect to Usual Supply.

FORECAST POINT	FORECAST	% of Average	Average <sup>†</sup>
Gunnison Inflow to Blue Mesa	650	85	767
Gunnison nr Grand Junction	1000	88	1137
Surface Cr. nr Cedaridge	15	94	16
Uncompahgre at Colona	100	78	129

STREAM or AREA	Flow Period	
	Spring Season	Late Season
North Fork of Gunnison Taylor	Exc. Exc.	Exc. Avg.

(1) Observed flow plus change in storage in Taylor, Blue Mesa and Morrow Point Reservoirs.

## SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average <sup>†</sup>
Gunnison	12	86	96
Surface Creek	3	99	100
Uncompahgre	3	80	86

## SOIL MOISTURE

RIVER BASIN	Number of Stations	THIS YEAR'S MOISTURE as PERCENT OF:	
		Last Year	Average <sup>†</sup>
Gunnison	1	74	90
Surface Creek	1	130	139
Uncompahgre	1	130	139

## RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average <sup>†</sup>
Blue Mesa	830	309	413	--
Morrow Point	121	115	114	--
Taylor	106	92	90	58

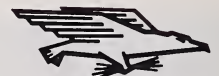
## RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average <sup>†</sup>

+ 1953-1967 period.

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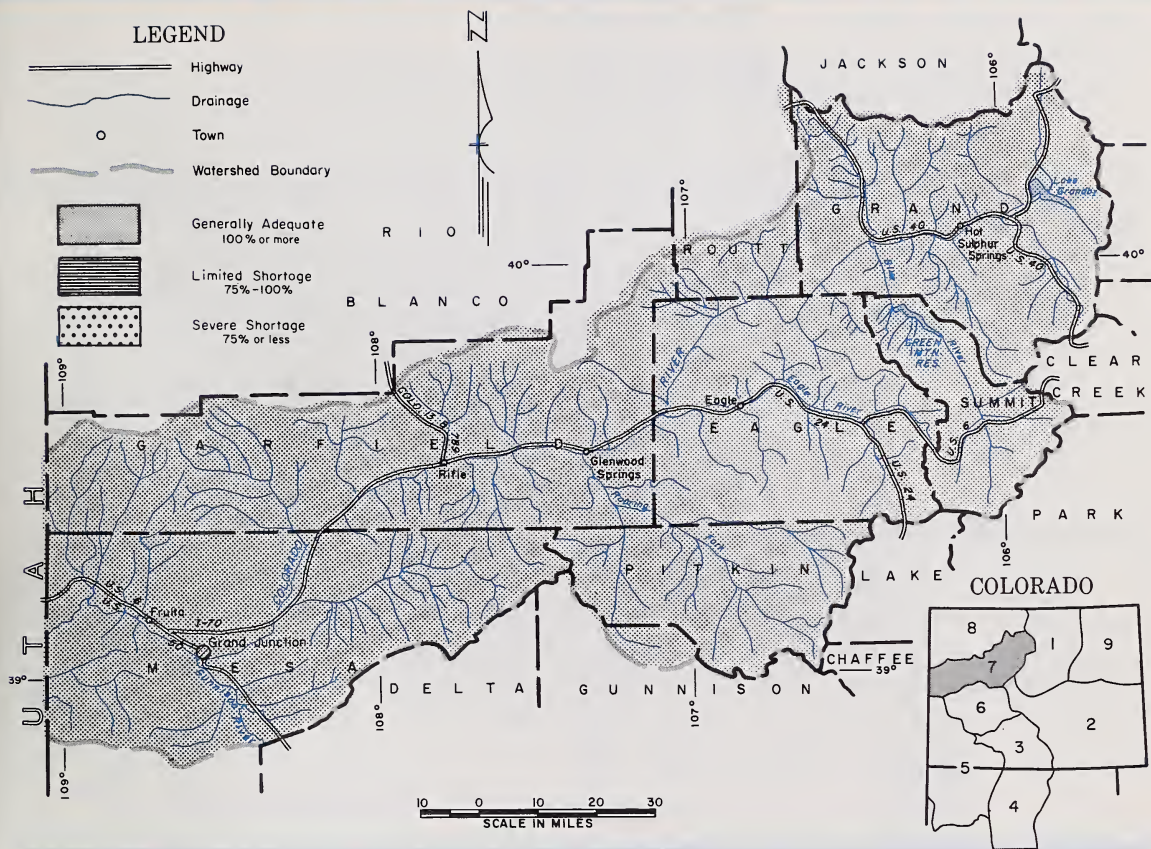


# WATER SUPPLY OUTLOOK FOR THE SOIL CONSERVATION DISTRICTS IN THE COLORADO RIVER WATERSHED IN COLORADO

as of

April 1, 1971

**U. S. DEPARTMENT OF AGRICULTURE · SOIL CONSERVATION SERVICE**  
COLORADO EXPERIMENT STATION, STATE ENGINEERS OF COLORADO AND NEW MEXICO



## YOUR WATER SUPPLY

THE COLORADO RIVER AND ITS TRIBUTARIES ABOVE GLENWOOD SPRINGS SHOULD ALL PROVIDE ADEQUATE WATER SUPPLIES THIS SUMMER. THE SNOW PACK VARIES FROM 103% OF AVERAGE ON PLATEAU CREEK TO 137% ON THE WILLIAMS FORK. FORECASTS FALL IN ABOUT THE SAME RANGE. SOILS IN THE IRRIGATED AREAS ARE REPORTED TO BE IN GOOD CONDITION. CARRY-OVER STORAGE IN THE COLORADO BASIN RESERVOIRS IS EXCELLENT. SOIL MOISTURE CONDITIONS IN THE MOUNTAINS ARE GOOD.

This report prepared by  
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*The Conservation of Water begins with the Snow Survey*

# STREAMFLOW FORECASTS (1000 Ac. Ft.)

Apr-Sept

# WATER SUPPLY OUTLOOK

Expressed as "Poor, Fair, Average, Excellent" With Respect to Usual Supply.

FORECAST POINT	FORECAST	% of Average	Average †
Blue ab Green Mt. (1)	275	117	236
Colo. Rv. inflow to Granby Res. (2)	275	126	219
Colo. Rv. nr Dotsero (3)	1600	116	1375
Roaring Fork at Glenwood Springs (4)	730	105	692
Wm. Fk nr Par. (5)	85	142	60
Will. Cr. inflow to Will. Cr. Res.	60	130	46
Colo. nr Cameo (6)	2480	112	2216

STREAM or AREA	Flow Period	
	Spring Season	Late Season
Brush	Exc.	Exc.
Eagle River	Exc.	Exc.
Gypsum Creek	Exc.	Exc.

(1) Observed flow plus diversions through Roberts Tunnel and change in storage in Dillon Reservoir. (2) Observed flow corrected for change in storage in Lake Granby as furnished by U.S.B.R. and diversions by Adams Tunnel and Grand River Ditch. (3) Observed flow plus the changes as indicated in (1), (2) and (5) plus Moffat Ditch and change in Homestake, Williams Fork, Green Mt. and Willow Creek Reservoirs. (4) Observed flow plus diversions through Divide and Twin Lakes Tunnels plus change in storage in Ruedi Reservoir. (5) Observed flow plus diversions through August P. Gumlick Tunnel. (6) Observed flow plus the changes as indicated in (3) and (4).

## SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average †
Blue River	8	88	122
Colorado	21	99	131
Plateau	3	106	103
Roaring Fork	7	103	121
Williams Fork	2	106	137
Willow	2	88	116

## SOIL MOISTURE

RIVER BASIN	Number of Stations	THIS YEAR'S MOISTURE as PERCENT OF:	
		Last Year	Average †
Blue River	1	103	129
Colorado	5	116	137
Roaring Fork	1	101	129
Willow	1	109	148

## RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

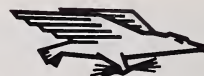
RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average †
Dillon	254	246	239	167
Granby	466	351	240	233
Green Mountain	147	55	50	63
Homestake	43	--	--	--

## RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average †
Ruedi	101	61	69	--
Williams Fork	97	45	42	27
Willow Creek	9	8	8	6
Vega	32	18	15	11

+ 1953-1967 period.

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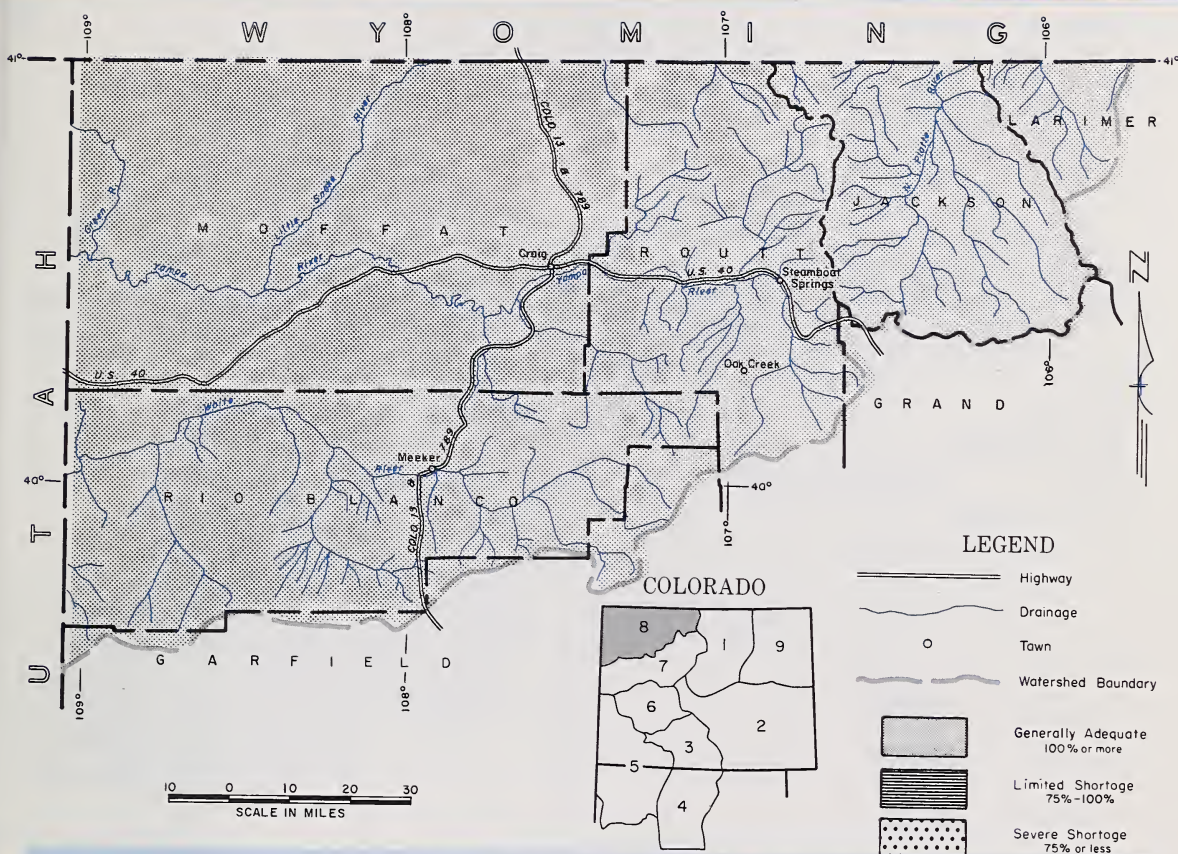
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# WATER SUPPLY OUTLOOK FOR THE SOIL CONSERVATION DISTRICTS IN THE YAMPA, WHITE, AND NORTH PLATTE RIVER WATERSHEDS IN COLORADO

April <sup>as of</sup> 1, 1971

**U. S. DEPARTMENT OF AGRICULTURE · SOIL CONSERVATION SERVICE**  
COLORADO EXPERIMENT STATION, STATE ENGINEERS OF COLORADO AND NEW MEXICO



## YOUR WATER SUPPLY

WATER SUPPLIES SHOULD FAR EXCEED DEMANDS IN NORTHWESTERN COLORADO. ALL STREAMS IN THIS AREA WILL FLOW MUCH ABOVE NORMAL. THE DEEPEST SNOW EVER MEASURED ON A REGULAR SNOW COURSE WAS RECORDED THIS YEAR. IT WAS 176 INCHES ON ROUND MOUNTAIN SNOW COURSE. MOUNTAIN SOILS ARE CONSIDERABLY WETTER THAN NORMAL. VALLEY SOILS ARE IN GOOD CONDITION. FORECASTS ARE BASED ON NORMAL PRECIPITATION FOR THE REMAINDER OF THE YEAR.

This report prepared by

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DENVER, COLORADO GLENWOOD SPRINGS, COLORADO

*The Conservation of Water begins with the Snow Survey*

# STREAMFLOW FORECASTS (1000 Ac. Ft.) Apr-Sept

# WATER SUPPLY OUTLOOK

Expressed as "Poor, Fair, Average, Excellent" With Respect to Usual Supply.

FORECAST POINT	FORECAST	% of Average	Average <sup>†</sup>
Elk at Clark	235	133	191
Laramie at Jelms	158	152	104
Little Snake at Lily	425	153	277
No. Platte at Northgate	375	174	225
White nr Meeker	355	121	293
Yampa nr Maybell	1130	132	853
Yampa at Steamboat Springs	340	131	260

STREAM or AREA	Flow Period	
	Spring Season	Late Season
Canadian River	Exc.	Exc.
Hunt Creek	Exc.	Exc.
Illinois River	Exc.	Exc.
Michigan River	Exc.	Exc.
Oak Creek	Exc.	Exc.
Trout Creek	Exc.	Exc.

## SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

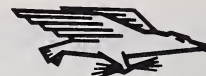
RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average <sup>†</sup>
Elk	3	104	119
Laramie	3	99	131
North Platte	5	108	136
White	2	110	122
Yampa	6	107	130

## SOIL MOISTURE

RIVER BASIN	Number of Stations	THIS YEAR'S MOISTURE as PERCENT OF:	
		Last Year	Average <sup>†</sup>
Laramie	2	91	122
North Platte	2	135	131
Yampa	1	100	166

+ 1953-1967 period.

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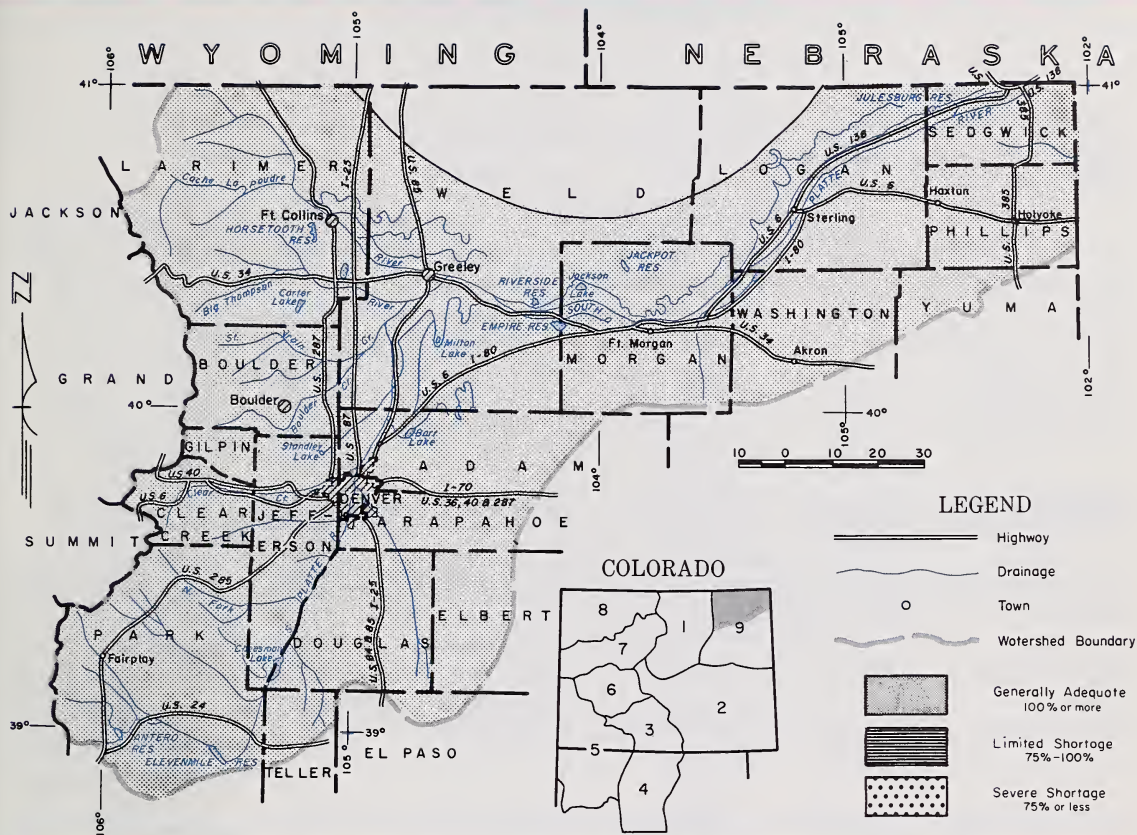
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# WATER SUPPLY OUTLOOK FOR THE SOIL CONSERVATION DISTRICTS IN THE LOWER SOUTH PLATTE RIVER WATERSHED IN COLORADO as of

April 1, 1971

**U. S. DEPARTMENT OF AGRICULTURE · SOIL CONSERVATION SERVICE**  
COLORADO EXPERIMENT STATION, STATE ENGINEERS OF COLORADO AND NEW MEXICO



## YOUR WATER SUPPLY

WATER SUPPLIES SHOULD BE EXCELLENT ON THE LOWER SOUTH PLATTE THIS SUMMER. THE SNOW PACK IN THE UPPER SOUTH PLATTE AND ALL ITS TRIBUTARIES IS MUCH ABOVE NORMAL. STREAMFLOWS ARE ALL FORECASTED TO FLOW ABOVE NORMAL. CARRY-OVER STORAGE IS NEARLY UP TO CAPACITY AND 123% OF AVERAGE. SOILS IN THE IRRIGATED AREAS ARE REPORTED TO BE IN GOOD CONDITION. FORECASTS ARE BASED ON NORMAL PRECIPITATION FOR THE REMAINDER OF THE YEAR.

This report prepared by

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*The Conservation of Water begins with the Snow Survey*

# STREAMFLOW FORECASTS (1000 Ac. Ft.) Apr-Sept

FORECAST POINT	FORECAST	% of Average	Average +
Big Thompson at Drake (1)	112	112	100
Boulder at Orodell	60	122	49
Cache La Poudre at Canon Mouth	250	116	215
Clear Cr. at Golden (2)	145	122	119
Saint Vrain at Lyons (3)	78	111	70

(1) Observed flow plus by-pass to power plants. (2) Observed flow minus trans-basin diversions plus municipal and irrigation diversions. (3) Observed flow minus diversion through August P. Gumlick Tunnel. (4) Observed flow plus change in storage in Price Reservoir.

## SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average +
Big Thompson	5	89	120
Boulder	3	75	101
Cache La Poudre	8	90	128
Clear Creek	6	79	110
Saint Vrain	3	74	104
South Platte	3	65	96

# WATER SUPPLY OUTLOOK

Expressed as Poor, Fair, Average, Excellent\* With Respect to Usual Supply.

STREAM or AREA	Flow Period	
	Spring Season	Late Season
South Platte from Greeley to Fort Morgan	Exc.	Exc.
South Platte from Fort Morgan to Sterling	Exc.	Exc.
South Platte below Sterling	Exc.	Exc.

## SOIL MOISTURE

RIVER BASIN	Number of Stations	THIS YEAR'S MOISTURE as PERCENT OF:	
		Last Year	Average +
Big Thompson	3	89	139
Boulder	1	102	121
Cache La Poudre	2	91	122
Clear Creek	2	92	130
Saint Vrain	2	95	122
South Platte	2	107	122

## RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average +
Carter	108.9	106.4	100.7	81.7
Cheesman	79.0	73.5	79.1	49.0
Eleven Mile	97.8	96.4	96.4	72.1
Empire	37.7	32.8	34.8	29.6
Horsetooth	143.5	116.5	108.4	106.8

## RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average +
Jackson	35.4	33.2	32.7	34.0
Julesburg	28.2	19.8	23.2	21.5
Prewitt	32.8	27.7	28.6	16.8
Point of Rocks	70.0	69.2	70.6	58.4
Riverside	57.5	61.9	60.5	49.6

+ 1953-1967 period.

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# APPENDIX I

SNOW COURSE MEASUREMENTS as of April 1, 1971

SNOW COURSE	CURRENT INFORMATION			PAST RECORD	
	DATE OF SURVEY	SNOW DEPTH (INCHES)	WATER CONTENT (INCHES)	WATER CONTENT (INCHES)	
				LAST YEAR	AVG. '53 '67
NORTH PLATTE BASIN					
<u>Laramie River</u>					
Deadman Hill	3/31	63	20.7	22.5	16.3
McIntyre	3/26	49	13.4	15.3	10.5
Roach	3/27	74	24.8	21.5	18.2
<u>North Platte River</u>					
Cameron Pass	3/31	88	38.6	33.1	26.5
Columbine Lodge	3/30	80	31.2	27.8	23.5
Norghgate	3/31	26	7.9	8.5	6.2
Park View	3/29	40	11.8	11.8	8.6
Willow Cr. Pass (B)	3/29	47	15.4	15.9	12.5
SOUTH PLATTE BASIN					
<u>Boulder Creek</u>					
Baltimore	3/30	21	7.1	12.2	5.9
Boulder Falls	3/29	43	14.2	18.4	13.3
University Camp	3/29	56	19.1	22.7	20.7
<u>Big Thompson River</u>					
Deer Ridge	3/26	16	4.7	9.4	5.0
Hidden Valley	3/29	39	10.6	13.4	11.0
Lake Irene (B)	3/27	79	27.3	27.4	20.7
Long's Peak	3/27	43	13.2	14.3	10.7
Two Mile	3/26	63	18.7	19.6	14.5
<u>Cache La Poudre</u>					
Bennett Creek	3/31	32	8.9	12.3	-
BigSouth	3/28	2	0.5	2.7	2.4
Cameron Pass	3/31	88	38.6	33.1	26.5
Chambers Lake	3/28	33	12.1	14.4	9.1
Deadman Hill	3/31	63	20.7	22.5	16.3
Hour Glass Lake	3/31	27	7.7	11.6	6.8
Joe Wright	3/31	78	29.3	30.1	-
Lost Lake	3/28	46	16.0	16.9	11.5
Pine Creek	3/30	2	0.7	3.7	1.9
Red Feather	3/30	31	7.9	10.9	7.2
<u>Clear Creek</u>					
Baltimore (B)	3/30	21	7.1	12.2	5.9
Berthoud Falls	3/30	54	16.3	20.4	12.9
Empire	3/30	26	8.5	11.9	7.5
Grizzly Peak (B)	3/30	70	23.9	25.7	17.9
Loveland Lift	3/31	53	16.5	24.5	23.4
Loveland Pass	3/31	54	19.0	20.7	15.4
<u>Saint Vrain River</u>					
Copeland Lake	4/1	11	5.5	7.5	4.4
Ward	3/29	24	6.6	9.6	6.7
Wild Basin	4/1	41	11.7	15.0	11.8
<u>South Platte River</u>					
Como	3/30	20	6.5	11.0	-
Geneva Park	3/29	10	2.7	7.8	3.5
Horseshoe Mt.	3/26	42	11.5	12.5	-
Hoosier Pass	3/29	45	11.6	18.0	12.9
Jefferson Creek	3/30	31	10.3	12.3	9.2
Mosquito	3/29	31	8.7	13.8	-
Trout Creek Pass	3/26	7	2.2	6.1	-
ARKANSAS BASIN					
<u>Arkansas River</u>					
Bigelow Divide	3/29	26	7.3	10.5	5.8
Cooper Hill (B)	3/31	49	12.2	14.6	10.6
East Fork	3/30	35	10.3	13.3	9.6
Four Mile Park	3/29	14	4.7	8.7	4.4
Fremont Pass	3/30	59	19.4	19.9	16.1
Garfield	3/29	36	12.4	14.4	13.2
Hermit Lake	3/29	15	5.4	-	-
Monarch Pass	3/29	47	16.3	20.1	17.3
Tennessee Pass	3/29	37	10.0	13.9	10.1
Twin Lakes Tunnel	3/29	39	10.3	11.0	10.7
Westcliffe	3/29	10	3.3	9.8	5.4

SNOW COURSE	CURRENT INFORMATION			PAST RECORD	
	DATE OF SURVEY	SNOW DEPTH (INCHES)	WATER CONTENT (INCHES)	WATER CONTENT (INCHES)	
				LAST YEAR	AVG. '53 '67
<u>Cucharas River</u>					
Blue Lakes	3/30	0	0.0	4.2	2.9
Cucharas Pass	3/30	9	3.9	9.0	-
LaVeta Pass (B)	3/30	7	2.4	7.2	7.3
<u>Purgatorio River</u>					
Bourbon	3/30	12	3.4	9.0	7.1
<b>RIO GRANDE BASIN-Colo.</b>					
<u>Alamosa River</u>					
Silver Lakes	3/31	0	0.0	3.8	5.5
Summitville	3/26	55	17.0	16.3	18.1
<u>Conejos River</u>					
Cumbres	3/30	28	10.3	13.4	18.6
Platoro	3/31	30	8.5	13.6	16.6
River Springs	3/29	6	1.6	3.1	4.8
<u>Culebra River</u>					
Brown Cabin	4/1	0	0.0	-	-
Cottonwood (B)	4/1	18	4.8	-	-
Culebra	3/30	14	4.8	-	8.4
LaVeta Pass (B)	3/30	7	2.4	-	7.3
Trinchera (B)				-	-
<u>Rio Grande</u>					
Cochetopa Pass	3/25	26	6.0	9.6	5.1
Grayback	3/29	30	11.4	14.0	-
Hiway	3/30	51	17.9	20.0	26.0
Lake Humphrey	3/26	10	3.2	5.1	5.5
Love Lake	3/30	11	3.3	8.5	-
Pass Creek	3/30	11	3.9	5.7	11.1
Pool Table	3/30	7	1.7	4.9	5.9
Porcupine	3/29	26	6.4	9.7	10.1
Santa Maria	3/29	2	0.5	1.8	3.7
Upper Rio Grande	3/29	12	4.2	4.3	6.8
Wolf Creek Pass	3/30	40	15.7	20.5	27.0
Wolf Cr. Sum. (B)	3/30	59	21.6	24.7	28.3
<b>RIO GRANDE BASIN-N.M.</b>					
<u>Pecos River</u>					
Panchuela	3/27	0	0.0	0.0	1.3
<u>Rio Chama</u>					
Bateman	3/27	25	6.4	10.5	11.4
Capulin Peak	3/29	0	0.0	3.8	4.0
Chama Divide	3/30	0	0.0	0.0	1.4
Chamita	3/30	3	0.7	5.4	7.5
<u>Rio Grande</u>					
Aspen Grove	3/29	2	0.5	3.2	3.7
Big Tesuque	3/29	0	0.0	1.3	4.2
Blue Bird Mesa	3/28	0	0.0	4.8	3.6
Cordova	3/26	21	5.1	8.8	10.0
Elk Cabin	3/30	0	0.0	0.8	2.1
Fenton Hill	3/30	0	0.0	3.7	2.7
Pajarito Peak	3/30	0	0.0	0.0	0.3
Payrole	3/30	4	1.2	8.4	6.2
Quemazon	3/29	8	2.8	8.6	8.2
Rio En Medio	3/29	6	2.8	6.6	7.7
Sandoval	3/29	0	0.0	3.9	4.5
Taos Canyon	3/29	0	0.0	2.9	3.5
Tres Ritos	3/25	0	0.0	4.0	4.2
<u>Rio Hondo</u>					
Twinning	3/30	3	1.0	8.9	-
<u>Red River</u>					
Hematite Park (B)	3/29	0	0.0	3.0	3.5
Red River	3/29	5	1.7	4.8	5.5

NOTE: NS - No Survey  
(B) - On Adjacent Drainage



# APPENDIX I

SNOW COURSE MEASUREMENTS as of April 1, 1971

CURRENT INFORMATION					PAST RECORD				
SNOW COURSE	DATE OF SURVEY	SNOW DEPTH (INCHES)	WATER CONTENT (INCHES)	WATER CONTENT (INCHES)		LAST YEAR	AVG. 53-67		
SAN JUAN-DOLORES BASIN									
<u>Animas River</u>									
Cascade	3/29	13	4.2	7.3	10.8				
Lemon	3/30	3	1.0	4.6	-				
Mineral Creek	3/29	38	12.5	15.8	13.3				
Molas Lake	3/29	30	9.7	11.7	12.6				
Purgatory	3/29	37	12.0	18.5	-				
Red Mt. Pass (B)	3/29	76	29.1	31.5	30.1				
Silverton Sub-Sta.	3/29	6	2.4	5.3	5.1				
Spud Mountain	3/29	47	16.4	18.6	23.1				
<u>Dolores River</u>									
Lizzard Head	3/30	40	13.2	16.4	16.0				
Lone Cone	3/29	38	13.4	16.7	-				
Rico	3/30	0	0.0	7.5	5.4				
Telluride	3/30	15	5.6	10.2	5.7				
Trout Lake	3/30	35	12.4	14.9	13.2				
<u>San Juan River</u>									
Chama Divide (B)	3/30	0	0.0	0.0	1.4				
Chamita (B)	3/30	3	0.7	5.4	7.5				
Upper San Juan	3/30	43	17.5	21.1	30.8				
Wolf Cr. Pass (B)	3/30	40	15.7	20.5	27.0				
Wolf Cr. Summit	3/30	59	21.6	24.7	28.3				
GUNNISON BASIN									
<u>Gunnison River</u>									
Alexander Lake	3/31	58	21.3	23.6	21.4				
Blue Mesa	3/30	17	5.1	10.6	7.9				
Butte	3/29	48	14.7	17.5	-				
Cochetopa Pass (B)	3/25	26	6.0	9.6	5.1				
Crested Butte	3/31	35	9.7	13.1	13.3				
Keystone	3/31	58	20.4	21.5	19.7				
Lake City	3/26	28	7.2	9.4	7.7				
Mesa Lakes (B)	3/29	52	17.5	18.0	17.5				
McClure Pass	3/29	42	15.3	17.3	14.6				
Park Cone	3/30	34	9.1	13.3	10.9				
Park Reservoir	3/29	63	23.6	21.5	23.6				
Porphyry Creek	3/29	51	16.6	18.8	16.9				
Tomichi	3/29	40	12.9	14.5	12.2				
<u>Surface Creek</u>									
Alexander Lake	3/31	58	21.3	23.6	21.4				
Mesa Lakes (B)	3/29	52	17.5	18.0	17.5				
Park Reservoir	3/29	63	23.6	21.5	23.6				
<u>Uncompahgre River</u>									
Ironton Park	3/30	36	11.7	16.6	17.9				
Red Mountain Pass	3/29	76	29.1	31.5	30.1				
Telluride (B)	3/30	15	5.6	10.2	5.7				
COLORADO BASIN									
<u>Blue River</u>									
Blue River	3/29	33	8.6	12.5	8.5				
Fremont Pass	3/30	59	19.4	19.9	16.1				
Frisco	3/30	27	8.8	10.6	7.5				
Grizzly Peak	3/30	70	23.9	25.7	17.9				
Hoosier Pass (B)	3/29	45	11.6	18.0	12.9				
Shrine Pass	3/30	67	23.6	23.7	17.4				
Snake River	3/30	36	10.9	12.4	7.6				
Summit Ranch	3/30	30	9.3	9.6	7.1				
Colorado River									
Arrow	3/30	49	18.7	12.1	11.8				
Berthoud Pass	3/29	60	21.6	20.3	14.5				
Berthoud Summit	3/30	69	21.4	23.6	19.3				
Cooper Hill	3/31	49	12.2	14.6	10.6				
Fiddler Gulch	3/29	54	15.0	18.4	15.1				
Glenmar Ranch	3/30	37	10.3	9.9	7.9				
Gore Pass	3/29	40	12.5	13.3	10.0				
Grand Lake	3/28	34	9.3	10.5	8.2				
Lake Irene	3/27	79	27.3	27.4	20.7				
Lapland	3/25	53	15.9	13.6	9.9				
Lulu	3/30	75	25.9	27.4	17.0				
Lynx Pass	3/29	50	16.2	15.7	12.0				
McKenzie Gulch	3/29	21	5.7	5.7	-				
Middle Fork	3/30	40	13.0	12.0	9.1				
Milner	3/27	56	17.4	18.5	13.3				
North Inlet	3/28	34	10.3	11.2	8.7				
Pando	3/30	36	11.3	12.2	10.4				
Phantom Valley	3/27	44	13.9	14.9	10.4				
Ranch Creek	3/30	45	14.5	13.7	9.4				
Tennessee Pass (B)	3/29	37	10.0	13.9	10.1				
Vail Pass	3/30	62	22.5	22.2	17.1				
Vasquez	3/26	59	18.3	16.7	12.4				
Roaring Fork River									
Aspen	3/29	70	24.9	18.0	16.4				
Chapman	3/29	56	18.1	17.4	-				
Independence Pass	3/29	65	20.2	23.2	17.7				
Ivanhoe	3/30	65	23.0	23.3	17.9				
Kiln	3/30	48	15.2	14.1	-				
Last Chance	3/30	40	13.3	11.8	-				
Lift	3/29	65	20.7	17.5	19.0				
McClure Pass	3/29	42	15.3	17.3	14.6				
Nast	3/30	25	7.8	8.0	5.3				
North Lost Trail	3/29	44	15.2	16.6	14.1				
Williams Fork River									
Glenmar Ranch	3/30	37	10.3	9.9	7.9				
Jones Pass	3/29	64	22.3	13.6	-				
Middle Fork	3/30	40	13.0	12.0	9.1				
Willow Creek									
Granby	3/29	26	7.7	10.4	7.5				
Willow Cr. Pass	3/29	47	15.4	15.9	12.5				
Plateau Creek									
Mesa Lakes	3/29	52	17.5	18.0	17.5				
Park Reservoir	3/29	63	23.6	21.5	23.6				
Trickle Divide	3/29	69	27.0	24.6	25.2				
YAMPA BASIN									
<u>Elk River</u>									
Clark	3/31	29	9.0	10.6	10.0				
Elk River	3/31	62	22.7	20.2	16.8				
Hahn's Peak	3/31	47	15.7	14.9	12.9				
<u>White River</u>									
Burro Mountain	3/30	60	22.6	20.0	17.0				
Rio Blanco	3/29	51	17.5	16.6	15.8				
<u>Yampa River</u>									
Bear River	3/26	51	13.4	15.1	11.1				
Columbine (B)	3/30	80	31.2	27.8	23.5				
Dry Lake	3/30	65	22.4	20.8	19.9				
Lynx Pass (B)	3/29	50	16.2	15.7	12.0				
Rabbit Ears	3/30	96	35.7	31.8	25.7				
Yampa View	3/30	52	19.8	18.1	14.3				

NOTE:

NS - No Survey  
(B) - On Adjacent Drainage

# APPENDIX II

SOIL MOISTURE MEASUREMENTS as of April 1, 1971

STATION	DATE OF SURVEY	CAPACITY (INCHES)	THIS YEAR	LAST YEAR	AVG. ALL DATA
NORTH PLATTE BASIN					
<u>North Platte River</u>					
Muddy Pass	3/31/71	11.1	7.3	4.8	6.4
Willow Pass	3/29/71	9.5	9.3	8.5	6.3
SOUTH PLATTE BASIN					
<u>Boulder Creek</u>					
Alpine Camp	3/29/71	6.9	4.1		3.4
<u>Big Thompson River</u>					
Beaver Dam	3/27/71	7.1	4.1		3.3
Guard Station	3/27/71	6.9	-	3.2	3.6
Two Mile	3/27/71	4.9	4.7		2.6
<u>Clear Creek</u>					
Clear Creek	3/31/71	9.5	6.6	7.2	5.0
Hoop Creek	3/29/71	4.9	3.3		2.6
<u>Cache La Poudre River</u>					
Feather	3/31/71	10.1	5.3	7.3	4.0
Laramie Road	3/28/71	12.4	7.9	7.2	6.8
<u>South Platte River</u>					
Hoosier Pass	3/29/71	7.8	4.3	4.9	4.3
Kenosha Pass	3/30/71	4.4	2.9	2.3	2.0
ARKANSAS BASIN					
<u>Arkansas River</u>					
Garfield	3/29/71	6.7	4.6	4.1	3.5
Leadville	3/30/71	7.8	3.2	3.1	3.7
Twin Lakes Tunnel	3/30/71	4.5	1.8	1.8	2.5
RIO GRANDE BASIN - COLORADO					
<u>Conejos River</u>					
Mogote	3/25/71	10.7	4.6	5.9	6.0
<u>Rio Grande</u>					
Alberta Park	3/29/71	8.2	6.8	5.1	4.7
Bristol View	3/31/71	6.1	5.1	3.2	3.4
LaVeta Pass	3/25/71	11.9	8.7	8.2	8.7
RIO GRANDE BASIN - NEW MEXICO					
<u>Rio Chama</u>					
Bateman	3/27/71	6.7	1.9	2.5	3.2
Chamita	3/30/71	8.0	4.7		4.1
<u>Rio Grande</u>					
Aqua Piedra	3/29/71	7.2	3.9	5.6	3.7
Big Tesuque	3/29/71	3.7	0.9	1.9	1.9
Fenton Hill	NS	6.5			5.1
Rio En Medio	3/29/71	3.5	0.4	1.4	1.2
Taos Canyon	3/29/71	3.3	2.3	2.4	2.3
<u>Red River</u>					
Red Summit	3/29/71	4.9	1.5	0.6	1.9
ANIMAS-SAN JUAN BASINS					
<u>Animas River</u>					
Cascade	3/29/71	9.1	6.4	3.9	6.9
Mineral Creek	3/29/71	5.7	4.1	2.6	3.5
Molas Lake	3/29/71	9.4	3.4	4.2	4.4
<u>Dolores River</u>					
Dolores	3/30/71	19.6	8.4	7.8	8.0
Lizzard Head	3/30/71	11.8	5.0	3.4	7.1
Rico	3/30/71	13.8	10.5	10.4	8.3

## APPENDIX II

### SOIL MOISTURE MEASUREMENTS as of April 1, 1971

STATION	DATE OF SURVEY	CAPACITY (INCHES)	THIS YEAR	LAST YEAR	AVG. ALL DATA
GUNNISON BASIN					
<u>Gunnison River</u>					
King	3/29/71	3.3	1.7	2.3	1.9
COLORADO BASIN (MAINSTEM)					
<u>Blue River</u>					
Blue River	3/29/71	4.2	3.1	3.0	2.4
<u>Colorado River</u>					
Berthoud Pass	3/29/71	3.9	3.1	3.2	2.5
Gore	3/29/71	4.9	3.5	3.3	2.6
Grand Mesa	3/29/71	12.5	12.5	9.6	9.0
Ranch Creek	3/30/71	8.7	5.9	6.1	5.3
Vail	3/30/71	12.3	10.5	8.4	6.5
<u>Roaring Fork River</u>					
Placita	3/31/71	9.3	8.4	8.3	6.5
YAMPA BASIN					
<u>Yampa River</u>					
Hahn's Peak	3/31/71	19.0	19.0	5.9	11.4



# LIST of COOPERATORS

The following organizations cooperate in snow surveys for the Colorado, Platte, Arkansas and Rio Grande watersheds. Many other organizations and individuals furnish valuable information for the snow survey reports. Their cooperation is gratefully acknowledged.

## STATE

Colorado State Engineer  
New Mexico State Engineer  
Nebraska State Engineer  
Colorado Experiment Station  
Rocky Mountain Forest and Range Experiment Station

## FEDERAL

Department of Agriculture

Forest Service  
Soil Conservation Service

Department of Interior

Bureau of Reclamation  
Geological Survey  
National Park Service  
Indian Service

Department of Commerce

Weather Bureau

War Department

Army Engineer Corps

Atomic Energy Commission

## INVESTOR OWNED UTILITIES

Colorado Public Service Company  
Public Service Company of New Mexico

## MUNICIPALITIES

City of Denver	City of Greeley
City of Boulder	City of Fort Collins

## WATER USERS ORGANIZATIONS

Arkansas Valley Ditch Association  
Colorado River Water Conservation District

## IRRIGATION PROJECTS

Farmers Reservoir and Irrigation Company  
San Luis Valley Irrigation District  
Santa Maria Reservoir Company  
Costilla Land Company  
Uncompahgre Valley Water Users' Association  
Twin Lakes Reservoir and Canal Company  
Trinchera Irrigation Co.

UNITED STATES DEPARTMENT OF AGRICULTURE  
SOIL CONSERVATION SERVICE  
SNOW SURVEY UNIT  
COLORADO STATE UNIVERSITY  
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